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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/303,802	04/30/1999	C. DAVID YOUNG	97CR159/KE	8875

7590

09/17/2002

ATTENTION KYLE EPPELE M/S 124-323  
ROCKWELL COLLINS INC  
400 COLLINS RD NE  
CEDAR RAPIDS, IA 52498

EXAMINER

ODLAND, DAVID E

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 09/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/303,802

Applicant(s)

YOUNG ET AL.

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 20-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. Amendments to the claims are acknowledged and the 35 U.S.C. 112, second paragraph rejections are withdrawn.

***Response to Arguments***

2. Applicant's arguments with respect to the double patenting rejection, of claim 1 are persuasive and the rejection is withdrawn.
3. Applicant's arguments with respect to the 35 U.S.C. 102 (b) rejection of claim 1 has been considered but is moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-22 and 24-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 step (d) recites, "...including within a clique with said one of the nodes...a node in said second group of nodes that communicates directly with said one of the nodes node and with said node in said first group of nodes..." This limitation is confusing; it is unclear whether plural groups of nodes make up a clique and also unclear which node(s) of which group(s) of which clique(s) are directly communicating.

Claims 21 and 22 are rejected because they depend on claim 20.

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Claim 24 is confusing because it recites of a step (f) while its parent claim (claim 1) does not recite any earlier steps, namely, (a) - (e).

Claims 25 –29 are rejected because they depend on claim 24.

Claim 25 recites "...cliques having at least as many neighboring clique as any neighboring clique..." in lines 3 and 4. It is unclear what is meant by 'at least as many neighboring clique as any neighboring clique'.

Claims 26-29 are also rejected because they depend on claim 25.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent number 5,719,868 to Young.

Referring to claim 1, Young discloses a method for automatically managing the communication channel resources between two transceiver nodes having neighboring transceiver nodes in a network of transceiver nodes (a method for automatically managing the communication channel resources between two nodes having neighboring nodes in a network of transceiver nodes [see column 7 lines 20-22]), wherein each node communicates during specific time slots and uses multiple frequencies on a time multiplex basis (each node communicates during specific time slots and uses multiple frequencies on a time multiplex basis [see column 7 lines 23 and 24]), the method comprised of storing possible communication time slots and

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frequencies between nodes in the network at each transceiver node (storing a table of possible communication time slots and frequencies between nodes in the network at each node [see column 7 lines 26 and 27]). Young also discloses of grouping nodes of a network into 'neighborhoods', which consist of multiple hops. Young does not explicitly disclose of cliques (neighborhoods) wherein each clique consists only of nodes that directly communicate with each other (note, this implies that all the nodes of the clique are only one hop distance apart).

However, it is well known in the art that communication between nodes of a network consisting of a small number of hops operate faster than a network consisting of a larger number of hops. For example, a message will move faster through a network with a smaller number of hops because there is less time spent on processing the routing of the message through each hop. Therefore, it would have been obvious to one skilled in the art at the time of the invention to utilize the system taught by Young but limiting the 'neighborhoods' to only include nodes that directly communicate with each other because doing so would provide for faster message transmissions.

Referring to claim 2, Young discloses the method discussed above. Furthermore, Young discloses that the nodes within a clique take turns transmitting within a shared time slot (each node shares a broadcast time slot, in which each uses for control packets [see column 2 lines 26-35]).

Referring to claim 23, Young discloses the method discussed above. Furthermore, Young discloses choosing time slots for each clique (identifying, in tables, the transmit time slot for each node in a neighborhood [see claim 1]).

### ***Conclusion***

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6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

Deo

August 14, 2002

  
HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
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